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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/884,593	06/18/2001	Jeff M. Anderson	10010867-1	3384

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HEWLETT-PACKARD COMPANY  
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EXAMINER

DIVINE, LUCAS

ART UNIT PAPER NUMBER

2624

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Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 09/884,593	Applicant(s) ANDERSON ET AL.	
	Examiner Lucas Divine	Art Unit 2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on 6/18/01.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 June 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Drawings*

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: **213** (mentioned on page 9 line 29 of specification). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 6 – 9, 11, 16 – 18, and 23 – 25 are rejected under 35 U.S.C. 102(e) as being anticipated by Shima (US 6369909).

Regarding claim 11, Shima teaches **a system for brokered rendering, comprising:**

**a processor circuit having a processor and a memory** (Fig. 23, seventh embodiment of Shima [cols. 31-34], the printer 81 includes an image controller 92, wherein it is inherent that a controller includes a processor and memory to perform the functions specified);

**a rendering broker stored in the memory and executable by the processor, the rendering broker comprising** (functional blocks 121, 123A, 123B, 125, included in image controller represent operations executable by the image controller):

**logic that examines a document embodied in a non-rendered format to identify at least one rendering operation to be performed to convert the document into a rendered format to be employed in printing the document** (the image controller receives a composite non-rendered document and identifies the file format of the resource to determine which operation should be performed to render the resource; col. 31 lines 54-67 and col. 32 lines 1 – 11 and 50 - 55);

**logic that identifies at least one rendering application capable of performing the at least one rendering operation** (col. 32 lines 1-2 teach sending the resource to a specific rendering application that performs the necessary ‘corresponding’ rendering operation to the file format); **and**

**logic that applies the document to the at least one rendering application to implement the at least one rendering operation** (logic shown through functional blocks 123A and B, wherein these applications render the document for the image composer based on the selection of the document analyzer; col. 32 lines 12-22 and 61-64).

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Regarding claim 16, which depends from claim 11, Shima further teaches that the logic that examines the document embodied in the non-rendered format to identify the at least one rendering operation to be performed to convert the document into the rendered format to be employed in printing the document further comprises **logic that identifies an application used to generate the document embodied in the non-rendered format** (Fig. 24 ref. no. 2303, col. 32 lines 51-55, wherein by identifying the file format, the composing application for that file is identified e.g. HTML composed by web browser, JPG by imaging program, DOC by Microsoft Word, PDF by Adobe, etc.).

Regarding claim 17, which depends from claim 11, Shima further teaches the logic that applies the document to the at least one rendering application to implement the at least one rendering operation further comprises:

**logic that generates a rendering requisition formatted according to a formatting requirement of the at least one rendering application** (a rendering requisition equates to requesting the rendering operation be completed from the document analyzer 121, each format renderer 123A, 123B, is shown as a functional unit in Fig. 23 which can be implemented as a software logic or hardware logic, either way, the logic for the renderers is a separate software or hardware logic that requires a request command to be sent to it, including the data to be rendered on, therefore, document analyzer must include logic that generates such a rendering request in order for the format renderers to be communicated with – for example, hardware units and software functions have control signals/variables that are generated and sent along with the data to be operated on);

**logic that associates the document with the rendering requisition** (the data to be rendered [called a resource by Shima] must be associated with the render request in order for the operation requested to be completed); **and**

**logic that applies the rendering requisition to the at least one rendering application** (the renderers inherently include logic that applies a rendering request to an actual rendering operation in order for the functional units to work).

Regarding claim 25, claim 11 claims an apparatus including the means claimed in apparatus claim 25. Since these apparatus claims 11 and 25 address the same functions and Shima teaches them as discussed in the rejection of claim 11, arguments analogous to those in claim 11 are applicable to apparatus claim 25. Thus claim 25 is anticipated by Shima for the reasons stated in the rejection of claim 11.

Regarding claim 1, the elements claimed in apparatus claim 11 perform all of the method steps of method claim 1. Therefore method claim 1 is rejected for the reasons stated in the rejection of apparatus claim 11.

Regarding claim 6, which depends from claim 1, the elements claimed in apparatus claim 16 perform all of the method steps of method claim 6. Therefore method claim 6 is rejected for the reasons stated in the rejection of apparatus claim 16.

Regarding claim 7, which depends from claim 1, the elements claimed in apparatus claim 12 perform all of the method steps of method claim 7. Therefore method claim 7 is rejected for the reasons stated in the rejection of apparatus claim 17.

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Regarding claim 8, which depends from claim 1, Shima further teaches **transmitting the document across a network to the at least one rendering application** (Fig. 24 ref. no. 2310, col. 32 lines 2-11, wherein if a renderer is not available in the specific printer, the job is transmitted across the network to another device for rendering).

Regarding claim 9, which depends from claim 1, Shima further teaches **storing a rendering request that includes the document embodied in the non-rendered format in a memory** (it is inherent that a printer has a printer queue to hold jobs until the image controller is available), **the rendering request being received from a remote device** (received through communications interface 91 from remote devices on network 170,160) **and requesting a conversion of the document embodied in the non-rendered format into the rendered format** (the document analyzer 121 sends the data to be rendered, thus requesting a conversion of the document).

Regarding claim 18, the logic that performs the functions of apparatus claim 11 are logic operations performed by the image controller which inherently run by a processor and memory. Further, the logic operations as claimed in claim 11 are the same as the code operations claimed in program code claim 18. Thus, claim 18 is rejected for the same reasons as discussed in the rejection of apparatus claim 11.

Regarding claim 23, which depends from claim 18, the logic operations as claimed in claim 16 are the same as the code operations claimed in program code claim 23. Thus, claim 23 is rejected for the same reasons as discussed in the rejection of apparatus claim 16.

Regarding claim 24, which depends from claim 18, the logic operations as claimed in claim 17 are the same as the code operations claimed in program code claim 24. Thus, claim 24 is rejected for the same reasons as discussed in the rejection of apparatus claim 17.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 2 – 5, 10, 12 – 15, 19 – 22, and 26 – 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shima embodiment 7 as applied to claims 1, 11, 18, and 25 above, and further in view of Shima embodiment 1.

Regarding claim 13, which depends from claim 11, the seventh embodiment of Shima does not teach the low function printer aspects that embodiment 1 does, thus embodiment seven does not specifically teach **converting the document in an intermediate format into a rendered printer ready format**.

Shima embodiment one teaches adding low-function printers to the system, so the high function printer discussed in embodiment 7 (Fig. 23) as combined with embodiment one would include **logic that identifies a predefined rendering operation to be performed that converts the document embodied in an intermediate print format into a printer ready format, wherein the non-rendered format is the intermediate print format and the rendered format is the printer ready format** (wherein embodiment one teaches that the high function printer



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[Fig. 2] is connected and distributes to the low-function printers, so the detection of language/format and rendering is completed [Fig. 3 steps 304-307] to create the intermediate code, but then another rendering operation is completed so that the low-function printers can print the document, thus the intermediate code is converted to a printer ready format [step 309, col. 16 lines 34-38]).

It would have been obvious to one of ordinary skill in the art to add the low-level printer options of embodiment 1 to embodiment 7. The motivation for doing so would have been to allow for distributed computing and printing with inexpensive printers. It would have further been obvious since both aspects are taught and incorporated by the same invention of Shima. Therefore, it is obvious that the function units described in various embodiments are designed to be able to work together.

Regarding claim 15, which depends from claim 13, Shima further teaches that the logic that identifies the at least one rendering application capable of performing the at least one rendering operation further comprises **logic that identifies a driver that converts the intermediate print format of the document into the printer ready format** (preparing a print job in such a way that the printer can print it is known as the art as performing print driver functionality [step 309 of Fig. 3], so for each low function printer [3A, 3B of Fig. 2], a separate step 309 would apply, thus identifying driver functionality for each low-level printer).

Regarding claim 12, which depends from claim 11, Shima, embodiment 1, further teaches that the logic that examines the document embodied in the non-rendered format to identify the at least one rendering operation to be performed to convert the document into the rendered format to be employed in printing the document further comprises **logic that identifies a predefined**

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**rendering operation to be performed that converts the document embodied in the non-rendered format into a print format** (the predefined rendering operation is the rendering operation A or B or C [123A, 123B] that is predefined to correspond with a specific file formats A,B,C).

Shima, embodiment 1 does not expressly teach that the **rendered format is an intermediate format** (the detection of language/format and rendering is completed, converting the code into an intermediate format that is later used for rendering again so that the low-function printers can print the data; Fig. 3 steps 304-307).

It would have been obvious to one of ordinary skill in the art to add the low-level printer options of embodiment 1 to embodiment 7. The motivation for doing so would have been to allow for distributed computing and printing with inexpensive printers. It would have further been obvious since both aspects are taught and incorporated by the same invention of Shima. Therefore, it is obvious that the function units described in various embodiments are designed to be able to work together.

Regarding claim 14, which depends from claim 12, Shima further teaches that the logic that identifies at least one rendering application capable of performing the at least one rendering operation further comprises **logic that identifies a predefined rendering application that converts the document embodied in the non-rendered format into the intermediate print format** (the rendering application identified as corresponding the file format converts the resource into the intermediate print format as discussed in the rejection of claims 11 and 12).

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Regarding claim 26, which depends from claim 25, claim 12 claims an apparatus including the means claimed in apparatus claim 26. Since these apparatus claims 12 and 26 address the same functions and Shima teaches them as discussed in the rejection of claim 12, arguments analogous to those in claim 12 are applicable to apparatus claim 26. Thus claim 26 is obvious by Shima for the reasons stated in the rejection of claim 12.

Regarding claim 27, which depends from claim 25, claim 13 claims an apparatus including the means claimed in apparatus claim 27. Since these apparatus claims 13 and 27 address the same functions and Shima teaches them as discussed in the rejection of claim 13, arguments analogous to those in claim 13 are applicable to apparatus claim 26. Thus claim 27 is obvious by Shima for the reasons stated in the rejection of claim 13.

Regarding claim 28, which depends from claim 26, claim 14 claims an apparatus including the means claimed in apparatus claim 28. Since these apparatus claims 14 and 28 address the same functions and Shima teaches them as discussed in the rejection of claim 14, arguments analogous to those in claim 14 are applicable to apparatus claim 28. Thus claim 28 is obvious by Shima for the reasons stated in the rejection of claim 14.

Regarding claim 29, which depends from claim 27, claim 15 claims an apparatus including the means claimed in apparatus claim 29. Since these apparatus claims 15 and 29 address the same functions and Shima teaches them as discussed in the rejection of claim 15, arguments analogous to those in claim 15 are applicable to apparatus claim 29. Thus claim 25 is obvious by Shima for the reasons stated in the rejection of claim 15.

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Regarding claim 2, which depends from claim 1, the elements claimed in apparatus claim 12 perform all of the method steps of method claim 2. Therefore method claim 2 is rejected for the reasons stated in the rejection of apparatus claim 12.

Regarding claim 3, which depends from claim 1, the elements claimed in apparatus claim 13 perform all of the method steps of method claim 3. Therefore method claim 3 is rejected for the reasons stated in the rejection of apparatus claim 13.

Regarding claim 4, which depends from claim 2, the elements claimed in apparatus claim 14 perform all of the method steps of method claim 4. Therefore method claim 4 is rejected for the reasons stated in the rejection of apparatus claim 14.

Regarding claim 5, which depends from claim 3, the elements claimed in apparatus claim 15 perform all of the method steps of method claim 5. Therefore method claim 5 is rejected for the reasons stated in the rejection of apparatus claim 15.

Regarding claim 10, which depends from claim 1, embodiment 1 and embodiment 7 in combination further teaches **receiving the document in the rendered format from the at least one rendering application** (embodiment 7 teaches receiving a rendered format from a rendering application across the network in col. 32 lines 9-11, wherein formatter C in another device sends back the rendered data); **and transmitting the document in the rendered format to a remote application across a network for printing** (Fig. 2, wherein embodiment 1 teaches the high function printer sends rendered documents to the low-function printers for printing).

Regarding claim 19, which depends from claim 18, the logic operations as claimed in claim 12 are the same as the code operations claimed in program code claim 19. Thus, claim 19 is rejected for the same reasons as discussed in the rejection of apparatus claim 12.

Regarding claim 20, which depends from claim 18, the logic operations as claimed in claim 13 are the same as the code operations claimed in program code claim 20. Thus, claim 20 is rejected for the same reasons as discussed in the rejection of apparatus claim 13.

Regarding claim 21, which depends from claim 19, the logic operations as claimed in claim 14 are the same as the code operations claimed in program code claim 21. Thus, claim 21 is rejected for the same reasons as discussed in the rejection of apparatus claim 14.

Regarding claim 22, which depends from claim 20, the logic operations as claimed in claim 15 are the same as the code operations claimed in program code claim 22. Thus, claim 22 is rejected for the same reasons as discussed in the rejection of apparatus claim 15.

### *Conclusion*

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US-6438576, Huang et al., 8-20-2002 : teaches a method and apparatus of a collaborative proxy system for distributed deployment of object rendering.

US-6035149, Akashi et al., 3-7-2000 : teaches an output apparatus and method in which a suitable analyzer is selected for input information and the input information is skipped if no analyzer is selected.

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US-20020097416, Chang et al., 7-25-2002 : teaches an output controller processor for universal data output including the generation of intermediate data.

US-20020163666, Iwata et al., 11-7-2002 : teaches the control of distributed printers including printer drivers creating intermediate print files as well as separate renderings in virtual printer drivers and real printer drivers.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lucas Divine whose telephone number is 703-306-3440. The examiner can normally be reached on Monday - Friday, 7:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Moore can be reached on 703-308-7452. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



**KING Y. POON**  
**PRIMARY EXAMINER**

Lucas Divine  
Examiner  
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